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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/669,410

09/25/2003

Kun Ho Lie

5046

38661

7590

07/18/2006

KUN HO LIE
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CHANDLER, AZ 85248

EXAMINER

SANTIAGO CORDERO, MARIVELISSE

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/669,410	Applicant(s) LIE ET AL.	
	Examiner Marivelisse Santiago-Cordero	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

DETAILED ACTION

Art Unit – Location

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/21/06 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection. However, since some of the references still apply, the relevant arguments are addressed below.

Applicant generally argues that Bacon in view of Prince fail to disclose connecting a mobile telephone headset port to receive ringer and voice AC signals from the mobile phone as input (Remarks: page 10, 4th full paragraph through page 11, 2nd full paragraph). In response, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Note that Applicant is claiming an apparatus for use in routing a mobile

phone incoming call to a connected landline communication apparatus, the apparatus comprising a headset cable. Bacon discloses this feature (see rejection below). The limitation “arranged to be interfaced to a headset port of the mobile phone to receive ringer and voice AC signals from the mobile phone as input” is a recitation of the intended use of the claimed invention.

In addition, applicant argues that Bacon does not teach that the ring tone voltage is approximately 12 V AC and that the ring tone generator is arranged to detect lifting of a handset from a hook of the ordinary telephone. In response, at the outset, it is inherent that the ring tone voltage provides a voltage to trigger the ringer (see Bacon: paragraph [0046] for triggering the ringer) (see rejection below). The voltage values are not critical and one of ordinary skill in this art at the time of invention by applicant would have been motivated to pick the voltage values to be enough so as to enable the electronic circuitry to work properly. In addition, the term “approximately” is broadly claimed, therefore, broadly interpreted. Moreover, in response to the argument that the ring tone generator is arranged to detect lifting of a handset from a hook of the ordinary telephone, the Examiner makes reference to Bacon paragraphs [0046], [0048], and [0052] where it discloses when the user picks up the handset to answer the call, the processor reverses the switches to disconnect a ring generator; hence, arranged to detect lifting of a handset from a hook of the ordinary telephone as claimed.

In addition, Applicant argues that Bacon does not teach or remotely suggests voltage drivers circuit, particularly voltage drivers circuit that is arranged to split an approximately 11 V DC current into an approximately 8V DC current and an approximately 11 V DC current (Remarks: page 12, 1st full paragraph). In response, Bacon’s Fig. 7, reference 708 show a power supply and charging control box with split output voltages; hence, suggesting voltage drivers

circuit that is arranged to split voltages (see also paragraph [0048]). As stated above, the voltage values are not critical and one of ordinary skill in this art at the time of invention by applicant would have been motivated to pick the voltage values to be enough so as to enable the electronic circuitry. In addition, the term “approximately” is broadly claimed, therefore, broadly interpreted.

Further, in section 2 of the Remarks (see pages 13-14), Applicant argues the apparatus claim of the instant application distinguish from the prior art in terms of structure and provides the example of claim 2 reciting a ring tone circuit controller includes a ring tone generator that is interfaced with a headset port of a mobile phone. In response, it should be emphasized that “apparatus claims must be structurally distinguishable from the prior art.” MPEP 2114. *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co. v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: “Apparatus claims cover what a device is, not what it does” (emphases in original). To emphasize the point further, the court added: “An invention need not operate differently than the prior art to be patentable, but need only be different” (emphases in original). In this case, Bacon’s apparatus reads on the claimed apparatus, since as stated above, apparatus claims cover what a device is, not what it does, and an invention need not operate differently than the prior art to be patentable, but need only be different.

In response to section 3 of the Remarks (see pages 14-), applicant's argument addressing what is perceived to be differences between the invention and the art of record, the fact that applicant has recognized another advantage which would flow naturally from following the

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suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Claim Objections

4. Claims 1-6 are objected to because of the following informalities:
- the article “An” (claim 1, line 14) should be replaced with --an--;
 - the article “A” (claim 1, lines 20 and 23) should be replaced with --a--;
 - the term “switche” (claim 2, line 17) should be replaced with --switch--;
 - the term “rely” (claim 3, last line) should be replaced with --relay--;
 - the term “rpeated” (claim 5, step h) should be replaced with --repeated--; and
 - the term “variance” (claim 5, step g) should be replaced with --variation-- in order to be consistent throughout the claim.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
6. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear what the applicant is referring to “a headset cable arranged to be interfaced to a headset port”. The Examiner did not find in the specification support for the limitation “a headset cable” as claimed. Applicant is required to show where in

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the specification the Examiner can find support for this limitation, if Applicant believes otherwise.

7. Claims 2-4 recites the limitation "the headphone port" in line 10 of claim 2. There is insufficient antecedent basis for this limitation in the claim, since there is no "headphone" port claimed before. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bacon et al. (hereinafter "Bacon"; cited in form PTO-892, paper no. 20051202).

Regarding claim 1, Bacon discloses an apparatus for routing a mobile phone incoming call to a connected land-line communications apparatus, the apparatus comprising:

a headset cable (Fig. 2; note the cable from coupling 208 to apparatus 202) arranged to be interfaced to a port of the mobile phone (Fig. 2, reference 208) to receive ringer and voice AC signals from the mobile phone as input (Fig. 7; paragraph [0029]);

an RJ11 port (Figs. 1-2, reference 104; paragraphs [0021]-[0027]) arranged to be interfaced with a first cable (Fig. 1), the first cable being arranged to be coupled to the land-line communications apparatus in order to send a DC voltage sufficient to drive a ringer of the land-line communications apparatus and to output an AC voltage for voice conversation (paragraphs [0027]-[0028]);

an approximately 110V AC power plug (Fig. 2, reference 108) arranged to be connected to an approximately 110 V AC power supply that is arranged to provide sufficient power to operate the apparatus (paragraph [0022];

a power supply circuit (Fig. 7, reference 708) to convert an approximately 110V AC current to an approximately [11V DC] current (paragraph [0048]);

a voltage drivers circuit (Fig. 7, reference 708), the voltage drivers circuit being arranged to split the approximately [11V DC] current into an approximately [8V DC] current and an approximately [11V DC] current (Fig. 7; paragraph [0048]); and

a ring tone circuit controller (Fig. 2, reference 212; Fig. 7, reference 714) arranged to detect ringer voltage from the mobile phone (paragraphs [0028]-[0029]) to generate an approximately [12V AC] current arranged to trigger the ringer of the land-line communications apparatus (paragraph [0028]), the ring tone circuit controller further being arranged to detect the lifting of a handset from a hook of the land-line communications apparatus in order to stop the approximately [12V AC] current such that the ringer is silenced (paragraphs [0028], [0046], [0048], and [0052]).

Bacon fails to specifically disclose a headset port and the specific voltage values. However, at the outset, Bacon does disclose that coupling 208 is an auxiliary port (paragraph [0026]). A headset port is fairly characterized as an auxiliary port since it is supplemental to any other ports present and one of ordinary skill in the art at the time of invention by applicant would have been motivated to modify the auxiliary port of Bacon to be a headset port for the advantage of adapting the apparatus to already existing components of the mobile phone; thereby, cost effective, simpler, and more versatile.

In addition, as stated above in the *Response to Arguments* section and repeated herein below, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Note that Applicant is claiming an apparatus for use in routing a mobile phone incoming call to a connected landline communication apparatus, the apparatus comprising a headset cable. As stated above, Bacon discloses this feature. The limitation “arranged to be interfaced to a headset port of the mobile phone to receive ringer and voice AC signals from the mobile phone as input” is a recitation of the intended use of the claimed invention.

Moreover, with regard to the specific voltage values claimed, these voltage values are not critical and one of ordinary skill in this art at the time of invention by applicant would have been motivated to pick the voltage values to be enough so as to enable the electronic circuitry to work properly. The circuitry requires voltage to operate; the specific value of such voltages is a matter of engineering design. In other words, the specific voltage will depend on a particular engineering design choice, therefore, obvious expedient, because it would have been the best choice for a particular system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to pick the voltage values claimed since these values are not critical and any value that would enable the electronic circuitry to work properly is within the knowledge of one of ordinary skill in this art; in addition to being a matter of engineering design choice because it would have been the best choice for this particular system.

It should be emphasized that “apparatus claims must be structurally distinguishable from the prior art.” MPEP 2114. *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co. v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: “Apparatus claims cover what a device is, not what it does” (emphases in original). To emphasize the point further, the court added: “An invention need not operate differently than the prior art to be patentable, but need only be different” (emphases in original).

Regarding claim 2, in the obvious combination, Bacon discloses wherein the apparatus is further arranged to interface with the headset port of the mobile phone for an approximately [3V AC] signal (paragraph [0029]), and wherein the ring tone circuit controller is arranged to interface with the voltage drivers circuit (Fig. 7; paragraph [0048]) and further includes:

a Ring Tone Generator (RTG) (Fig. 2, reference 212; Fig. 7, reference 714) arranged to be interfaced to the headphone port of the mobile phone (Fig. 2) which, upon receiving an incoming call, outputs the approximately [3V AC] signal (paragraphs [0028-][0029]), the approximately [3V AC] signal being arranged to generate a series of high-low voltage cycles to drive the ringer of the land-line communications apparatus (paragraphs [0028-][0029] and [0046]; note that for ringing, a series of high-low voltage cycles is inherently present); and

an Impedance Variation Detector (IVD) (paragraph [0046]) that is arranged to, upon detecting a line resistance variation caused by lifting or hanging-up the handset from the hook of the land-line communications apparatus, switch the approximately [11V DC] power supply to the RTG unit to silence the ringer of the land-line communications apparatus or to prepare for the

approximately [3 V AC] signal that is arranged to drive the ringer of land-line communications apparatus (paragraph [0046]).

Bacon fails to specifically disclose the headset port and the specific voltage values; however, one of ordinary skill in this art at the time of invention by applicant would have been motivated to modify the apparatus of Bacon to incorporate the headset port and the specific voltage values for the same reasons and motivations sated above for claim 1.

Regarding claim 5, Bacon discloses a method for utilizing an apparatus for routing a mobile phone incoming call to a connected land-line communications apparatus, the method comprising:

- a) connecting the apparatus to a port (Fig. 2, reference 208) of a mobile phone (Fig.2, reference 204) such that the port of the mobile phone provides an input AC signal to the apparatus (Fig. 2; paragraph [0029]);
- b) connecting the apparatus to an RJ11 port of the land-line communications apparatus (paragraphs [0021] and [0027]) to enable the apparatus to output a DC voltage that is arranged to activate the land-line communications apparatus (paragraph [0048]);
- c) detecting the input AC signal form the port of a mobile phone (paragraphs [0028]-[0029]), wherein the input AC signal is arranged to activate a ring tone generator of the apparatus (paragraphs [0028] and [0046]) in order to generate a series of high-low voltage cycles arranged to drive a ringer of the land-line communications apparatus (paragraphs [0028]-[0029] and [0046]; note that for ringing, a series of high-low voltage cycles is inherently present);

- d) detecting a first resistance variation (paragraphs [0046], [0048], and [0052]), the first resistance variation being caused by alternating a configurations of a handset of the land-line communications apparatus to a first configuration (paragraphs [0046], [0048], and [0052]), wherein the resistance variation is arranged to be detected by an impedance variation detector (paragraphs [0046], [0048], and [0052]) and is arranged to remove power from the ring tone generator in order to stop a series of high-low voltage cycles (paragraphs [0046], [0048], and [0052]);
- e) providing a path for an approximately [3V AC] voice current between the mobile phone and the land-line communications apparatus to enable voice communication (paragraph [0046]; note that when the tip and ring paths are carrying a voice signal, the signal is generally approximately 3 volts);
- f) altering the configuration of the land-line communications apparatus to a second configuration (paragraphs [0046], [0048], and [0052]);
- g) detecting the resistance variation after alternating the configuration of the handset of the land-line communications apparatus to the second configuration (paragraphs [0046], [0048], and [0052]) using the impedance variance detector to provide a power to the ring tone generator to enable a series of high-low ringer voltage cycles on the land-line communications apparatus (paragraphs [0046], [0048], and [0052]); and
- h) awaiting the AC input signal from the headset port of the mobile phone such that steps c) – g) are repeated (paragraphs [0028]-[0029] and [0052]).

Bacon fails to specifically disclose a headset port and the specific voltage values. However, at the outset, Bacon does disclose that coupling 208 is an auxiliary port (paragraph

[0026]). A headset port is fairly characterized as an auxiliary port since it is supplemental to any other ports present and one of ordinary skill in the art at the time of invention by applicant would have been motivated to modify the auxiliary port of Bacon to be a headset port for the advantage of adapting the apparatus to already existing components of the mobile phone; thereby, cost effective, simpler, and more versatile.

Moreover, with regard to the specific voltage values claimed, these voltage values are not critical and one of ordinary skill in this art at the time of invention by applicant would have been motivated to pick the voltage values to be enough so as to enable the electronic circuitry to work properly. The circuitry requires voltage to operate; the specific value of such voltages is a matter of engineering design. In other words, the specific voltage will depend on a particular engineering design choice, therefore, obvious expedient, because it would have been the best choice for a particular system.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to pick the voltage values claimed since these values are not critical and any value that would enable the electronic circuitry to work properly is within the knowledge of one of ordinary skill in this art; in addition to being a matter of engineering design choice because it would have been the best choice for this particular system.

Regarding claim 6, in the obvious combination, Bacon discloses wherein each of steps a), b), e), f), g), and h) is associated with an analog signal path for a phone conversation (paragraphs [0028]-[0029], [0046], [0048], and [0052]) and occurs after initiating a call and having the call answered (paragraphs [0028]-[0029], [0046], [0048], and [0052]).

Allowable Subject Matter

10. Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cotreau (Patent No.: 5,517,565) discloses that when tip and ring paths are carrying a voice signal, the signal is generally on the order of 3 volts.

12. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSC 7/10/06

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LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER